Ministry of Industry and Trade

Hợp tác Đức
DEUTSCHE ZUSAMMENARBEIT

implemented by
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MOIT/GIZ ENERGY SUPPORT PROGRAMME

Together for a better energy future

Mitigating Financial Risks for Biomass Energy projects in Viet Nam

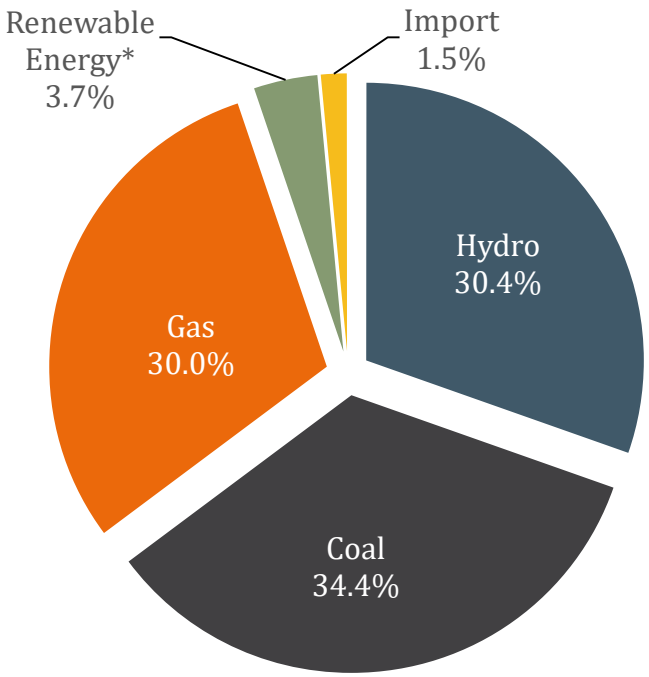
Thursday, December 15, 2016

Agenda

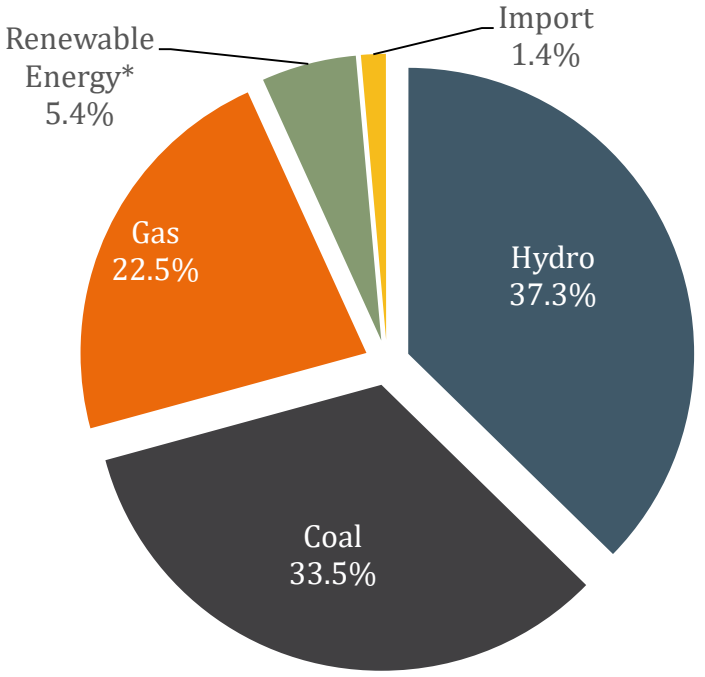
1. Renewable Energy in Vietnam with focus on biomass – potential and current utilization
2. Challenges and Barriers
3. Design of a Risk Mitigation Mechanism for Biomass Energy Projects
4. Potential Impact

1. Renewable Energy in Vietnam – potential and current utilization

Electricity Production and Installed Capacity (2015)



164,31 TWh
Electricity Production



39,35 GW
Installed Capacity

* Including small hydro power

Source: IoE (2016)

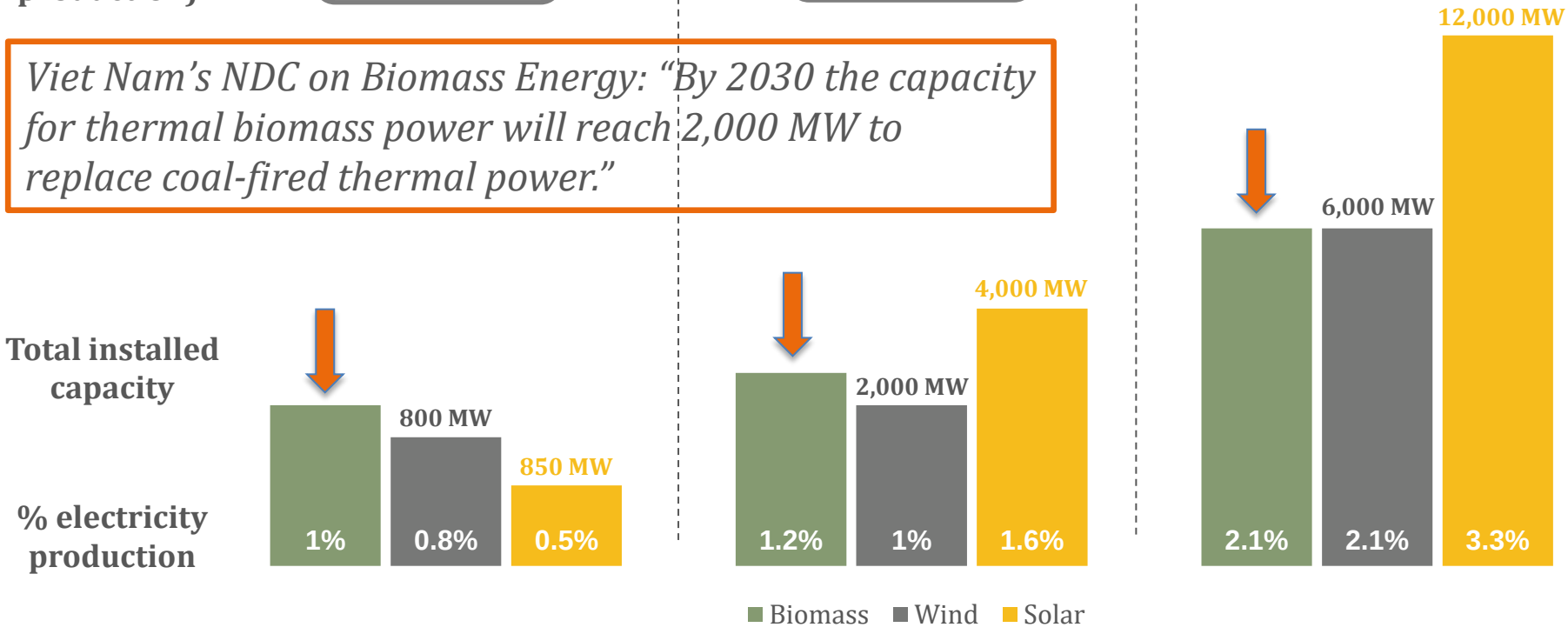
1. Renewable Energy in Vietnam – potential and current utilization

Renewables Targets for 2020, 2025 and 2030 (*PDP VII rev*)

RE* **(% electricity production)**

2020	2025	2030
6.5 %	**6.9 %**	**10.7 %**

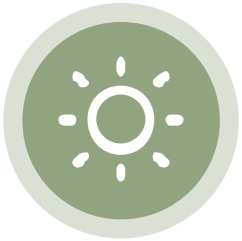
Viet Nam's NDC on Biomass Energy: "By 2030 the capacity for thermal biomass power will reach 2,000 MW to replace coal-fired thermal power."



* Including small hydro power

1. Renewable Energy in Vietnam – potential and current utilization

RENEWABLE ENERGY POTENTIAL FOR POWER GENERATION

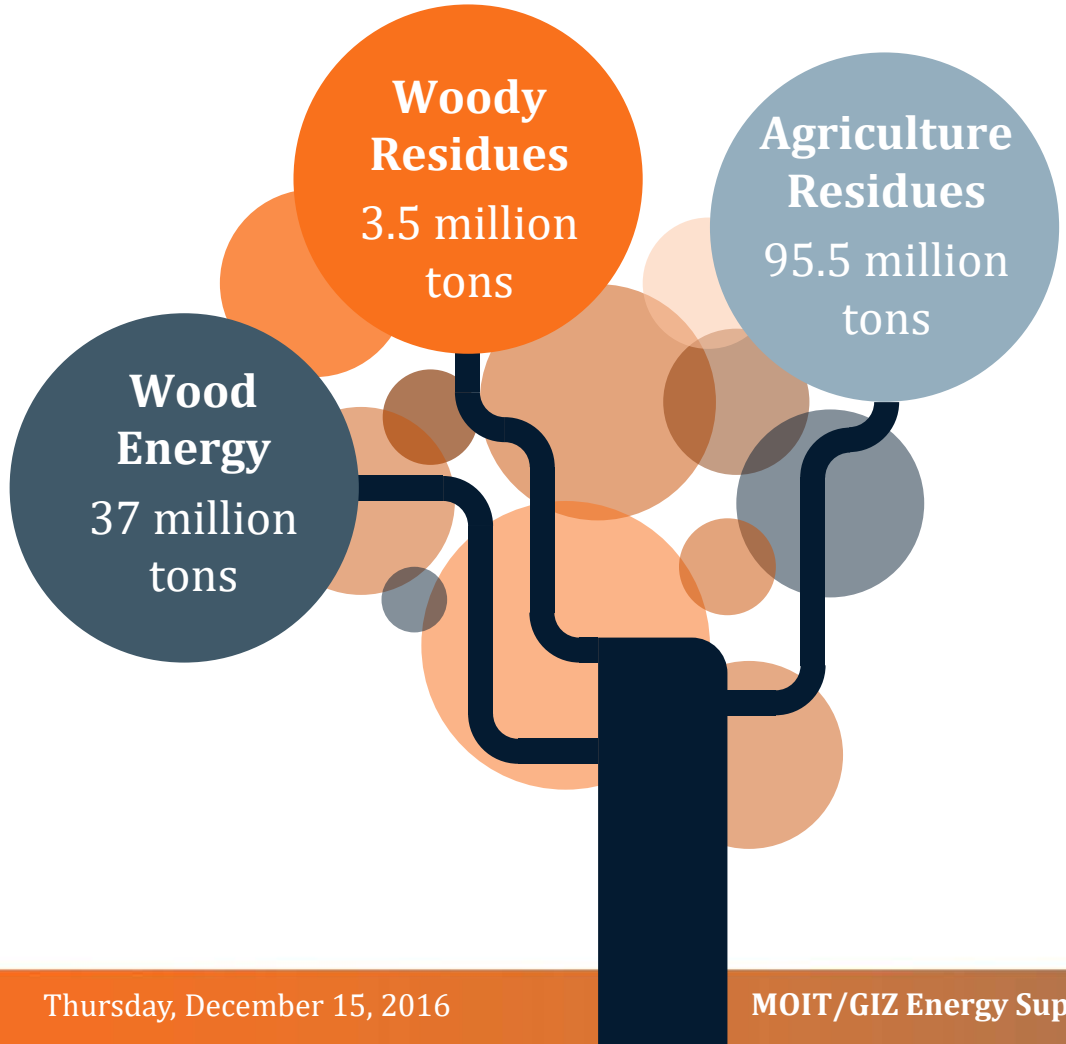
	Biomass biogas	Wind	Solar	Small Hydropower	MSW	Geothermal
						
Expected Potential	8,500	27,000	130,000	7,000	400	350
Installed Current	375	164	5.6	2,143	2.4	0
Could be Exploited and Invested	8,125	26,836	129,944	4,857	397.6	350

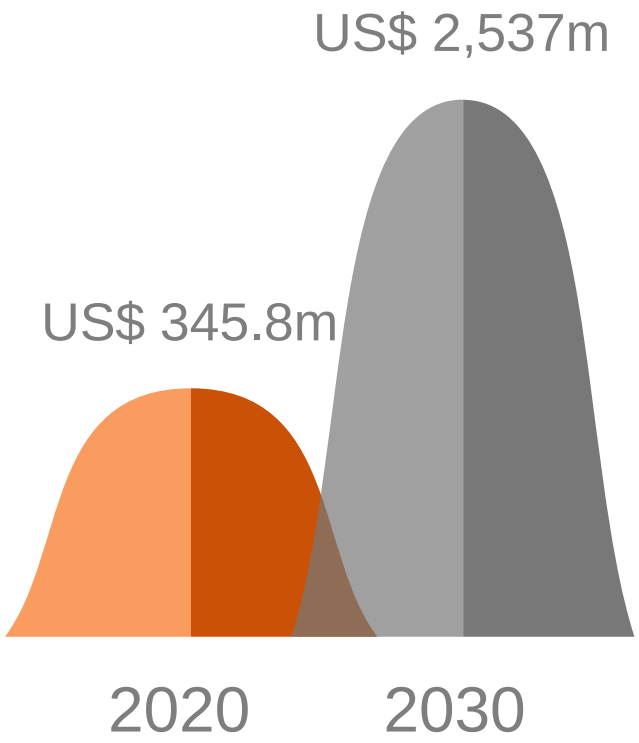
Sources: N.D.Cuong, WB, MoIT, IE, EVN

Unit: MW

1. Renewable Energy in Vietnam – potential and current utilization

Biomass theoretical potential

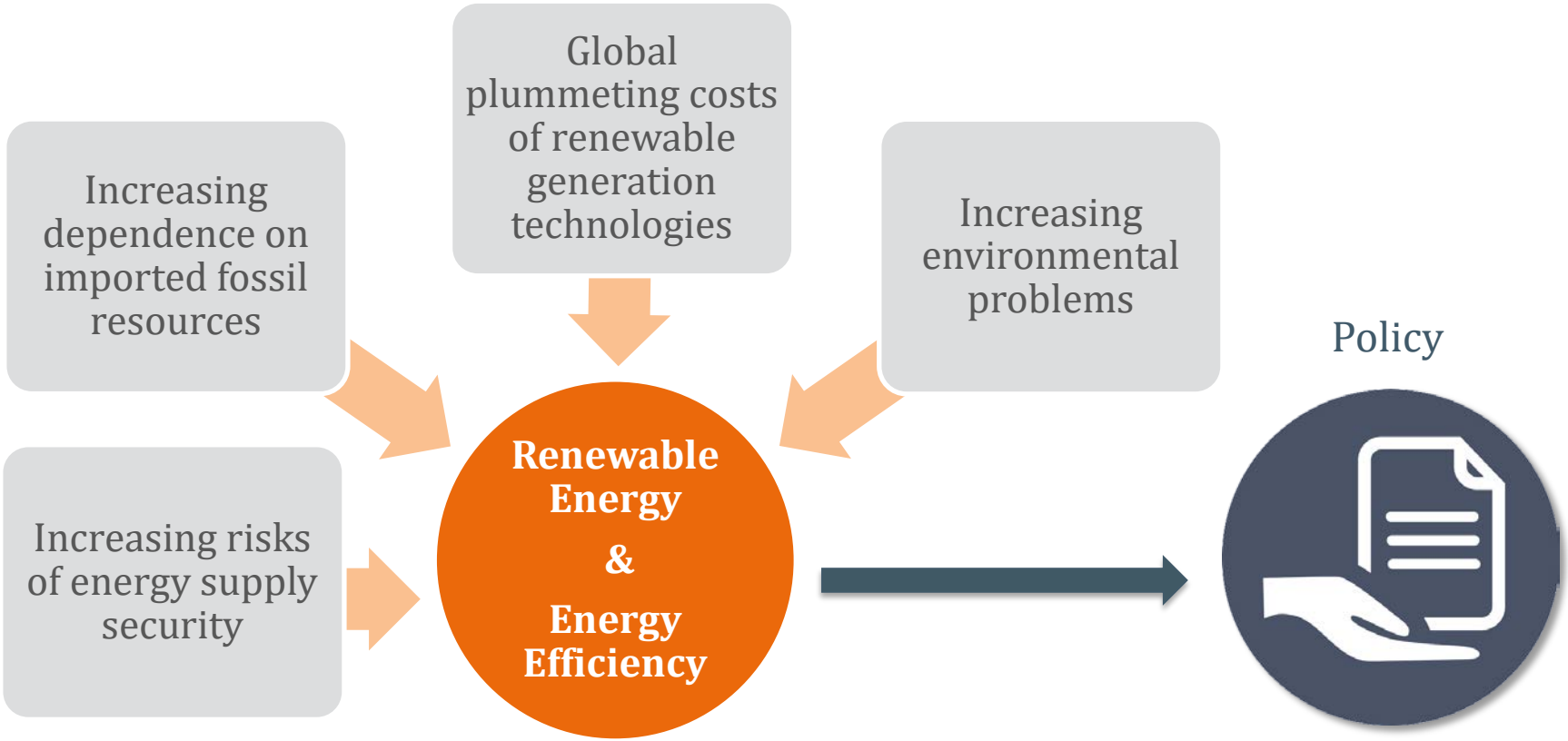




Investment requirements

2. Challenges and Barriers

Why Viet Nam needs to turn to RE and EE



2. Barriers and Challenges

Project Development

Lack of Financing Options

- Limited **access to financing** (equity & loans) and **guarantee schemes**

Technology and Market Readiness

- There is a lack of locally available technologies for RE market development.
- Lack of available necessary **RE potential data** for project development

Regulatory Framework

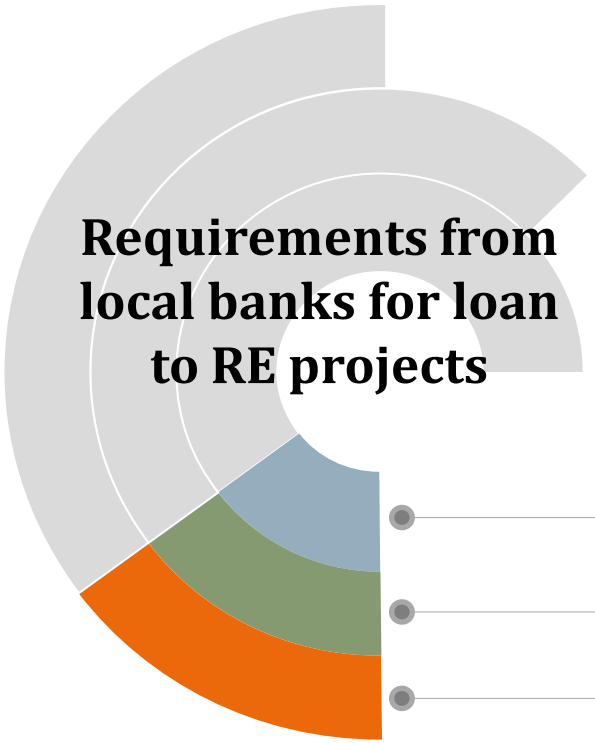
- Lack of national **law** and **planning** for RE, low **FiTs**
- Complex and unclear **procedures** for investments

Capacity

- Low **capacities** for project development and financing
- Low **awareness of biomass energy potentials and planning** within local authorities
- Limited biomass project **experiences**
- **Limited knowledge of RE technologies by local commercial banks**

2. Barriers and Challenges

Lack of Financing Options



Maturity.

5 – 7 years

Interest rate

10 – 12%

Collateral

XXX

3. Designing a Risk Sharing Facility (RSF) for Biomass Energy projects in Viet Nam

Piloting the sugar industry

- The Risk Sharing Facility **initially** seeks to **focus on the sugar sector.**
- The sugar industry is well consolidated and has **readily available biomass fuel** – without significant supply chain concerns.
- In addition, sugar companies have an interest in developing/expanding RE capacities based on the recent establishment of **biomass CHP feed-in-tariff (FIT).** Under this CHP FIT, implementing/expanding CHP generation in sugar mills is **economical.**
- Based on the these factors, a **concrete project pipeline** for the sugar industry will be developed.
- The pipeline will then receive **support from a Risk Sharing Facility (RSF)** to facilitate access to loan financing to the investors.

3. Designing a Risk Sharing Facility (RSF) for Biomass Energy projects in Viet Nam

How would this Risk Sharing Facility work?

- The Risk Sharing Facility (RSF) is intended **to mitigate the risk of the lending bank in case of a default** by the borrower (investor of a biomass energy project) on his loan.
  - I.e. in the case that a borrower cannot repay a loan which has been guaranteed by the RSF, **a portion of its losses** (principal and/or second losses) **will be covered by the Risk Sharing Facility.**
- In addition to sharing the risk of loss associated with the covered asset portfolio, the RSF also intends **to provide technical assistance** to
  - **expand the investors' capacity** to submit bankable project documents
  - **expand banks' capacity** to assess, monitor/service the loan (application)

3. Designing a Risk Sharing Facility (RSF) for Biomass Energy projects in Viet Nam

Approach

The RSF was designed **thanks to the inputs of**:

- 5 largest commercial banks & VDB & State Bank of Vietnam
- 10 sugar factories
- International & domestic technology providers and energy sector experts
- Donors and IFIs
- Multiple government stakeholders

4. Potential Impact of the RSF

Experience from other countries shows **potential leverage of 5-6 times** will be made available to finance bioenergy projects

RSF and accompanying technical assistance will **help reduce risks – and thereby costs for the lending banks**

As RE market matures, **banks will be more comfortable lending** to bioenergy projects without using RSF in the future

Thank you

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